DOCUMENT RESUME

ED 354 693 EC 301 878

AUTHOR	Queen, Kay; McCallister, Corliss
TITLE	Theoretical Perspectives on Teaching the Young Creatively Gifted or Talented Child.
SPONS AGENCY	Department of Education, Washington, DC.
PUB DATE	Aug 91
NOTE	22p.; Paper presented at the World Conference on Gifted and Talented Children (9th, The Hague, Netherlands, August, 1991).
PUB TYPE	Speeches/Conference Papers (150) -- Reports - Descriptive (141) -- Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Ability Identification; *Creative Development; *Creativity; Early Intervention; Economically Disadvantaged; *Educational Principles; *Gifted; *Gifted Disadvantaged; Preschool Education; Program Development; Talent; Teaching Methods; *Teaching Models; Theories

ABSTRACT

This conference presentation begins with an outline of the assumptions involved in a theoretical model for the teaching of creatively gifted young children. The assumptions include: (1) creativity is continuous, not dichotomous; (2) creativity is a dynamic, interactive, and multidimensional process; (3) creativity may encompass intentionality but requires awareness; and (4) creativity is a higher order intellectual process. The model is then presented, with components considered integral to the creative process: biological aspects, psychological aspects, sociological aspects, and knowledge (both conceptual knowledge and strategic knowledge), all resulting in a creative product or performance. The model's application to a preschool for economically disadvantaged children called Kaleidoscope is then described. Suggestions are offered based on this application. They include: educational interventions at any level must be keyed to the degrees and varieties of giftedness served; educational interventions must be dynamic, interactive, and multidimensional; interventions should promote awareness of creativity in the student, in their parents, in their teachers, and in their community; interventions that are primarily designed for enhancing the development of creativity will also impact other intellectual processes; interventions planned for creative children should consider all components of the model; and class content, process, product, and environment must be adapted to promote opportunity and affirmation. (Contains 45 references.) (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED354693

THEORETICAL PERSPECTIVES ON TEACHING THE YOUNG CREATIVELY GIFTED OR TALENTED CHILD

Kay Queen and Corliss McCallister
Institute for the Gifted and Talented
Texas A&M University
College Station, TX 77843-4225

Presented at the
9th World Conference on Gifted and Talented Children
The Hague, The Netherlands
August, 1991

This research was funded by a Jacob Javits Grant #R206A00585 awarded by the U.S. Department of Education.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Kay W. Queen
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC 301878

BEST COPY AVAILABLE

Good morning! My name is Dr. Addison Sandel and I am a clinical psychologist from the United States. I have been working in the field of gifted education for many years and have had many personal and professional experiences with creatively gifted children. However, I am not here today to discuss my own information and experience but to share with you the presentation of a former student, Mrs. Corliss McCallister and her colleague at Texas A&M University, Mrs. Kay Queen. These authors deeply regret that they cannot be here with us at the conference and apologize sincerely for their absence. Both of these ladies were asked to teach additional classes at the last moment. I will try, therefore, to present their work to you by reading a manuscript that they have prepared for this occasion.

To introduce the topic and to give you some background on their work, I must first tell you that this work is being financed by a government grant from the U.S. Dept of Education, a Jacob Javits Grant. The main purpose of this grant is to develop effective identification methods for creatively gifted young children who come from economically disadvantaged backgrounds. However, as the first step toward achieving this goal, theoretical work was undertaken. A theoretical model was then developed to serve as the basis for the identification procedures.

The theoretical assumptions which will be presented today were developed by Dr. Patricia Alexander, Dr. William Nash and their graduate assistant, James Parsons. The practical applications for the classroom were designed by doctoral students Kay Queen, Corliss McCallister, and Linda Boyd.

At this time, I should also mention that the project was very lucky to have two excellent faculty resources at other universities, Dr. Dorothy Sisk from Lamar University and Dr. Roberta Daniels from Arkansas State University. These ladies are subcontractors for the grant. In our audience today is Dr. Patricia Haensly, a member of the steering committee for this project. She has graciously agreed to answer your questions at the close of this program.

Now that you know some specific information about the authors and their experience and a bit about the project, let us begin the main part of this presentation by discussing briefly the assumptions of the Alexander/Nash theory. Because time does not

permit us a full examination of the components of the theory, I would like to share with you the most important part of the theory to date, the four assumptions. These assumptions are the most applicable part of the theory to the teaching of creatively gifted children.

The first assumption made by the authors is that creativity is continuous, not dichotomous. The authors accept the premise that all people, especially young children are creative. They are opposed to the view that creativity is a "special gift" bestowed upon a few, rare, human beings. However, while Drs. Nash and Alexander see creativity as a basic human ability, they acknowledge that like other human abilities, there are individuals who excel in creative thought and creative performance. A child who excels in creative areas even before traditional school age must be identified.If that child is to retain his creative qualities and accept his creativity as part of his developing self-image, he must feel accepted and valued for this unusual trait.

The second assumption is that creativity is a dynamic, interactive and multi-dimensional process. When a child comes to a classroom for the first time, she has already been "learning" for some time. She has learned from her home and family what is acceptable behavior and what is expected of her. The child does not leave these experiences at the classroom door, but instead integrates what is presented and modeled by her teacher into her existing personality and performance. When she returns home, she interacts with her family in a new way. In the dynamic process of combining former and current learning, she begins creating the person she is to become.

The third assumption is that creativity may encompass intentionality but requires awareness. A child who stretches his attention span when engaged in an artistic project, is aware that he enjoys artistic activities. A young child will often forego playing with friends because he would rather paint, draw, or play with clay.

The fourth assumption is that creativity is a higher order intellectual process. Given a safe emotional environment, young children may develop intense interests in art, science, language, or music. The child who seems obsessed with insects, for example, probably recognizes that there are many kinds of insects. He can visually discriminate between several varieties and genuinely wants

to know more about their specific differences. In effect, his intellectual life's work may be beginning.

These four assumptions are the theoretical basis for the curriculum and the instructional design advocated for the young creatively gifted child. However these assumptions are only the first part of the work by Alexander and Nash. The model designed by them was even more important to the practical design decisions of the preschool. As a visual representation of the relationships which contribute to the creative process, the model impacted all decisions about curriculum and instruction.

Here is that model. (See Figure 1.) Please note the model components which are considered integral to the creative process: biological aspects, psychological aspects, sociological aspects, knowledge (both conceptual knowledge and strategic knowledge), all resulting in a creative product or performance.

The authors do not intend for this model to represent a flow chart of any kind. They are stressing however that the creative child is multi-dimensional, is interactive with a series of influences in her environment, and that the creative child is engaged in a dynamic process which feeds back on itself in many ways.

Now that you are briefly acquainted with this model, we will emphasize the important aspects of this model for teaching purposes. First, the model is based on an extensive review of the literature on creativity and the development of creativity in individuals. It gives us a framework which synthesizes previous research; it provides us with an understanding of the relationships between important components of the creative process; and in some cases, it suggests points of conflict important to the creative child experiencing problems.

Secondly, this model emphasizes changes--it specifies the areas in which children develop as they become older. It gives teachers and curriculum writers a perspective on what influences are impacting the child's creativity. And in specifying those influences on creative development, the model shows us how to facilitate that development.

Third, this model adds important components to be discussed when we plan curriculum and its evaluation. Specifically, the model

gives a place to both strategic and conceptual knowledge. In much of the literature to date, creative skills are advocated without comment on the effects of the child's knowledge base.

Now that you have the theoretical assumptions and the visual model of the Nash/Alexander ideas and have a general idea of how these ideas are important to curriculum and instruction, let's turn to a quick review of the American literature. Because you are an international audience, we regret that only American sources will be presented. Please know that we value the work of our international colleagues and that we did order and read as many sources from other countries as we could. However because of time constraints we will limit our discussion to researchers published in American journals.

When reviewing papers dealing with the biological issues involved in teaching the creative child, it was noted that the greatest emphasis was placed on physical abilities of a child at a given age. Creative children's intellectual reasoning ability often exceeds their fine motor coordination. As educators, we must be careful not to encourage or stimulate a child's inquisitive nature beyond what he can accomplish physically in a safe way. We must remember that children are not miniature adults.

Papers considering the psychological issues for teaching creative children were the most abundant and included discussions of a teacher modeling creativity in her classroom, encouraging a child's questioning, realizing the value of a child's ideas, and responding to these ideas. Of utmost importance is a safe learning atmosphere in which the child can function.

Sociological issues pertaining to teaching creative children dealt mainly with problem identification, problem solving, language acquisition, and communication. Social interaction with peers and adults was another area of concentration.

Aspects of knowledge acquisition and its effects on creativity were also explored. Some of these ideas were quite negative; that is, novices in a field are sometimes more creative than experts. Other articles either implied or stated outright that a certain level of knowledge, both conceptual and strategic, is necessary before creative production can occur. There are, of course, many, many

articles concerning the teaching and learning of creative skills, creative techniques and creative procedures.

We are about half-finished at this point and we want to leave the theoretical aspects behind. What have we learned from this project that you as teachers can use in your preschool classroom on Monday? What ideas are important for you administrators who are planning programs for young creatively gifted children?

The practical applications and suggestions made here by Queen and McCallister were field-tested at the summer preschool sponsored by Texas A&M and funded by the Javits Grant. However, these suggestions are also based on many years of experience in working with creative children Mrs. Queen is the founder and owner of a school for creatively gifted children in Dallas, TX. The school named "Esperanza", which is Spanish for "hope", specializes in helping creative children who are having social or emotional problems. Mrs. McCallister's work has been with gifted preschoolers and her program called ALPHA was described six years ago at the Hamburg World Conference.

Kaleidoscope was a month long model preschool which served 44 children, ages 4 and 5. The children all came from the Bryan/College Station area of Texas but the students represented eight different countries. The wide range of nationalities resulted from the many international students attending our university. These students are economically disadvantaged while their parents attend school. The majority of the students, however, were native-born Americans of several races, although some of these American students were first-generation citizens.

Let me show you a graph describing the population of our preschool this summer. (See Figure 2.) This graph shows the racial background of the student population. 45% of the students were black, 23% of the students were Hispanic, 20% were Caucasian and 12% were Asian.

The teaching staff consisted of ten teachers from varying backgrounds. Some were public school teachers, some private school teachers, some from a government preschool program called Head Start, and one with no experience who had just graduated from college. The educational level of these teachers ranged from no college work to graduate level studies. Their teaching styles and

philosophies reflected their own individual backgrounds. However, a common factor shared by all of the teachers was a dedication to helping young children learn. Furthermore, all of the teachers had previously evidenced high levels of creativity in their own teaching strategies.

The characteristics of the school will give you some idea of the priorities and methods which we will suggest to you in this presentation. These characteristics were:

1) The curriculum and instruction were based on the model and assumptions as set forth by Drs. Nash and Alexander;

2) A team approach was used not only in recruiting and identifying students but in instructing them;

3) The practical aspects of this teaching system were stressed so that this prototype could be used by other educational agencies with little adaptation. That is, practicality and effectiveness were the goals.

The first practical suggestion that we propose is that educational interventions at any level, must be keyed to the degrees and varieties of giftedness served. That is, whether you are designing a program, writing a curriculum or teaching a lesson, you must remember that creative children like academically gifted children come in many "flavors" if you will. There are the mildly, the moderately, and the severely creative. There are children who are creative in the performing arts, in the sciences, in the humanities. Your program, your curriculum, your lesson must allow for this variation and encourage it!

The second suggestion is that educational interventions must be dynamic, interactive and multidimensional. This rule is taken from the assumption which is similarly worded. If our curriculum is static, if our lesson is didactic, if our perspective is unidimensional, we are constraining that child's creativity.

The third suggestion is that interventions will and should promote awareness of creativity in the student, in their parents, in their teachers and in their community. Interventions designed for enhancing creativity will also impact the parenting process, the

teaching process and the mentoring process. These educational interventions will ultimately impact the community as well.

The fourth suggestion is that interventions which are primarily designed for enhancing the development of creativity will also impact other intellectual processes.

The fifth and last suggestion is that interventions planned for creative children should consider all components of the model. That is, there must be a constant monitoring of all aspects of the child's life impacting creative development.

Now that we've discussed the practical suggestions based on the assumptions of the theory, let's turn to the practical applications of the model. First, any program for young creatively gifted students must concern itself with the biological aspects of the student. The importance of health, exercise, diet and environment need to be stressed, especially since creative individuals do not always place a priority on these physical and physiological needs of their bodies and minds. Certainly we as teachers must instill in students the importance of their physical health, not only in areas such as dance and gymnastics, but also in areas removed from the psychomotor domain.

In planning the psychological interventions for creatively gifted students we must remember always to support those characteristics which impact creativity, such as risk-taking, independence, etc. And we must encourage individual motivation, especially for young children and especially for minority or economically disadvantaged students. We must acknowledge the importance of the emotional well-being of the child. By including in any lesson,in any environment, in any curriculum, emphasis on emotional health and social adjustment, we can, perhaps, allow that child to value himself, to value his gifts and to find acceptable outlets for his creative energies.

For our project, Kaleidoscope, the next category was extremely important. Sociological implications are paramount for children of different ethnic or racial backgrounds and for children from lower socioeconomic strata. We acknowledge that each society, each culture has an impact on creative development. Certainly economic status impacts creative development in the limitations placed upon the child--lack of supplies for creative play, lack of money for

lessons in the arts, lack of the educational advantages that money might bring.

Families (or the lack of families) can also impact a creative child's development. The Kaleidoscope students came from diverse family units. Some lived with their natural parents, some with a single parent; some children lived with their grandparents as primary caregivers. The family environment, the emotional support offered, the physical care given, the amount of time and attention given to these children...all of these variables affect the child's development, specifically his creative abilities.

The community in which he lives may aid or hinder his development. Social service agencies were especially helpful to us in finding children who were economically disadvantaged to participate in Kaleidoscope. Head Start referred the majority of students. In addition Child Protective Services, a state agency, also referred students with special needs.

Consider the educational organizations available for instructing young creatively gifted children in your community. Two school districts referred children to Kaleidoscope. However, only one of these districts has a program for creatively gifted elementary children.

Now we would like to give you some specific suggestions on modifying curriculum and instruction for the creative child. We'll be using a breakdown very familiar to special education teachers and we'll be considering adaptations to content, process, product and environment. In each of these areas, we'll be adapting the class to promote opportunity and affirmation. Let me repeat those words--they're so important to teaching creative children--opportunity and affirmation.

By opportunity we mean giving creative children the time, the materials, the psychological conditions, and the physical space to exhibit and enhance their creativity. Opportunity applies to teachers and to parents as well as to students. Is the school program one that gives creative opportunities to everyone? Opportunity concerns choice and repertoire and possibilities and it can be applied to every aspect of curriculum and instruction. It impacts everything from the teacher's attitudes to the arrangement of furniture.

When we began to think about opportunity, especially in relationship to disadvantaged students, many ideas came to mind that were physical or tangible. However a great many more important opportunities can be listed as well. (See Figure 3.) Here is a partial list: recognition of talent and the resulting pride within the entire family, increased self-esteem of the child, and appreciation in the family unit of the child's uniqueness.

Affirmation to us means valuing, recognizing, documenting, approving, supporting, encouraging, and strengthening creative students. Certainly the goal of any program for creative children must be the self-affirmation of the student during the creative process, the self-congratulation after the creative product is complete, and the self-investment in future creative endeavors. We can provide affirmation for students by recognizing their special abilities, by evaluating their work, by documenting their progress, by providing an audience for their works, and by giving them even more opportunities to create. Here are other examples of affirming practices for the classroom. (See Figure 4.)

And again, an important facet of affirmation is that teachers and parents must be affirmed as well as students. Does the program involve, reward and strengthen the significant adults in the child's life? Does it affirm the community's commitment to its creative citizens? Does it give positive feedback to cultural institutions which support the creative child?

Special education teachers are very familiar with the classroom aspects which must be examined and modified for exceptional children. Creative children, because they are an exceptional population, also need a modified school experience. We change their lesson content, the process by which the child learns, the products the child creates and the environment in which he learns; many adjectives come to mind. These are the very adjectives one might use to describe a creative person: flexible, open, spontaneous, open-ended, imaginative and original. If we advise our teachers to match the classroom descriptors to the children's traits we will develop a supportive and congruent setting, a flexible teaching style, and an open-ended curriculum.

When teachers consciously plan a creative environment, the effects are seen not only in the children's behavior and in the children's products, but also in the teachers' behavior. Two examples

of this change in teacher behavior observed during Kaleidoscope were lesson planning and student evaluation.

The planning by teachers for Kaleidoscope lessons changed dramatically from the beginning to the end of the program. It progressed from traditional lesson plans to spontaneous, flexible adaptations to the children's interests. An evolution of teacher planning occurred as a result of the teachers' opportunities to be creative themselves. Affirmation by lead teachers and student behaviors encouraged teachers to risk innovative activities and formats.

Just as teacher planning changed, so did the teacher's evaluation of their students. Evaluation of creative traits and creative behaviors proved difficult for the teachers. However evaluation of creative products became an enjoyable responsibility assumed by the teachers. At the end of Kaleidoscope, they were not only comfortable with but enthusiastic about assessing the children's work. Therefore through the opportunities and affirmation provided by this program, these creative teachers became even more creative in their planning and evaluation activities.

In conclusion, program development for young creative children has often been a solitary activity characterized by the creativity of the individual teacher. Her values, her ideas, her products were the basis of each program. Lacking a theoretical basis for instruction, the individual teacher used her creativity and intuition to structure experiences for each group. But now, progress in the teaching of young creative children, can be hastened by our agreement on a common theoretical framework for creative development and instruction. We hope these assumptions and this model by Alexander and Nash represent a starting point for such agreement. Providing a gestalt for the many articles on teaching, the many suggestions on curriculum, we believe this model can be a blueprint for a holistic approach to the teaching of young creative pupils.

In summary, the value of this project to date lies in these four areas. First, there are both general and specific uses of the theory and the model for planning programs. Second, there are implications from the assumptions and the model for both curriculum and instruction. Third, there are specific suggestions which have come about as a result of the preschool which can be applied to creative

development in general. Those ideas are opportunity and affirmation. Fourth, systems for both planning and evaluating learning situations have been developed which can be used at any level.

We appreciate your attention and would like to remind you that copies of this paper are available from the Institute for the Gifted and Talented and the address is on your handout. The Javits Grant has been funded again for next year and we look forward to sharing developments on the theory and the model at the next World Conference. Thank you.

Teaching Bibliography

Alamprese, J.A. and Erlanger, W.J. (1989). No gift wasted: Effective strategies for educating highly able, disadvanted students in mathematics and science. Volume I: Findings. ERIC ED 312 802. 102 pages.

Alexander, W. and Caldwell, M. (1983). Characteristics of special needs learners. ERIC ED 240 337 55 pages.

Ballagas, L.D. (1980). Special environmental education project for disadvantaged gifted primary grade students. ERIC ED 222 002 130 pages.

Brittain, W.L. (1986). The effect of materials on young children's drawings. Visual Arts Research. 12 (2) 10-15.

Campbell, P.B. (1983). Computers in education: A question of access. ERIC ED 233 684. 10 pages.

Cannella, Gaile S. (1988). The effects of environmental structure on writing produced by young children. Child Study Journal. 18 (3) 207-221.

Block, Jack, Gjerde, Per F., and Block, Jeanne H. (1986). Continuity and transformation in the psychological meaning of categorization breadth. Developmental Psychology. 22 (6) 832-40.

Boat, B.W. and Campbell, F.A. (1986). Preventive education and birth order as co-determinants of IQ in disadvantaged 5 year olds. Child Care Health and Development. 12 (1) 25-36.

Davis, G.A. and Rimm, S.B. (1985) (1989 Second Edition). Education of the Gifted and Talented. Englewood Cliffs, NJ: Prentice Hall.

DeBono, E. (1967). New Think. New York: Avon Books.

Freeman, J. (1985). The early years: Preparation for creative thinking. Gifted Education International. 3 (2) 100-104.

Gersten, R. (1989). Content and orientation of kindergarten curriculum for at-risk students. ERIC ED 307 044. 33 pages.

Ghatala, E.S. (1986). Strategy-monitoring training enables young learners to select effective strategies. Educational Psychologist. 21 (1 & 2) 43-54.

Gourgey, A.F.,Bosseau, J. and Delgado, J. (1984). The impact of an improvisational dramatics program on school attitude and achievement. ERIC ED 244 245 32 pages.

Gowan, J.C., Khatena, J.C., and Torrance, E.P. (1967) (1981 Second Edition). Creativity: Its Educational Implications. Dubuque, Iowa: Kendall/Hunt Publishing Co.

Gunarsa, S.D. (1984 ?). Cognitive development of children: Symposium IA. ERIC. ED 273 356. (5 pages).

Harrington, Joseph and Harrington, Megan. (1987). Schools, parents and bright children. The Creative Child and Adult Quarterly. XII (1) 66-70.

Harrington, R. (1987). Creativity is child's play: Verbal elaboration as a facilitator of creative play. Techniques. 3 (4) 312-319.

Hitz, R. (1987, January). Creative problem-solving through music activities. Young Children. pp. 12-17. (inc. citation).

Hoffman, J.V., Roser, N.L. and Farest, C. (date). Literature-sharing strategies in classrooms serving students from economically disadvantaged and language different home environments. (inc. citation). 331-337.

Isaacs, Ann Fabe. (1987). Identifying and parenting the gifted-talented-creative (GTC) child beginning with preschool. The Creative Child and Adult Quarterly. XII (1) 21-30.

Jason, L.A., Liotta, R.F., Robinson, L. and Ferone, L. (May, 1983). Developing social skills among day care children. ERIC. ED 232 776.

Teaching Bibliography
Page 2

Kalmar, M. and Balasko, G. (1987). Musical mother tongue and creativity in preschool children's melody improvisations. Bulletin of the Council for Research in Music Education. no volume (91) 77-86.

Kalmar, Magda and Kalmar, Zsoska. (1987). Creativity training with preschool children living in children's homes. Studia Psychologica. 29 (1) 59-66.

Karnes, M.B. and Johnson, L.J. (1987). Bringing out head start talents: Findings from the field. Gifted Child Quarterly. 31 (4).

Marcos, G. (1989). Cross-cultural comparisons of educational fluency in preschool children. School Psychology International. 10 (3) 199-204.

Minuchin, P. (1987). Schools, families and the development of young children. Early Childhood Research Quarterly. 2 (3) 245-254.

Okon, W. (1984). Forms of multi-faceted activity in the play of children aged 3-6. Psychologia Wychowawoza. 27 (1) 54-65.

Phisalaphong, W., Haditono, S.R., Nand, T.A. and Mani, T.R. (1984). Child-rearing practices: Symposium, IC. ERIC ED 273 358. 29 pages.

Pickard, Eileen. (1990). Toward a theory of creative potential. The Journal of Creative Behavior. 24 (1) 1-9.

Potter, E.F. (1986). Evaluation, standard setting, and attributions in preschool classrooms: An observational study. Child Study Journal. 16 (2) 143-158.

Przetacznik, G.M. (1986). The role of language in the creativity of preschool children. Psychologia Wychowawoza. 29 (1) 2-19.

Repucci, L.C. (1988). Definitions of creativity (Report to Dow Chemical Company--unpublished report). Reprinted in Sternberg, R.J. (Ed.). The Nature of Creativity: Contemporary Psychological Perspectives. Cambridge: Cambridge University Press.

Rescorla, Leslie and Okuda, Sachiko. (1987). Modular patterns in second language acquisition. Applied Psycholinguistics. 8. 281-308.

Rosamilha, N. (1985). Play activities and the development of figural and verbal fluency in first grade children. Revista Interamericana de Psicologia/Interamerican Journal of Psychology. 19 (1 & 2) 33-44.

Shipman, V.C. (1981). Schools can and do make a difference: Findings from the ETS longitudinal study of young children and their first school experience. ERIC ED 243 984. 29 pages.

Shmukler, D. and Naveh, I. (1984-5). Structured vs. unstructured play training with economically disadvantaged preschoolers. Imagination, Cognition and Personality. 4 (3) 293-301.

Simon, T. (1985). Play and learning with computers. Early Child Development and Care. 19 (1-2) 69-78.

Stanley, J.C., George, W.C. and Solano, C.H. (1977). The Gifted and the Creative: A Fifty-Year Perspective. Baltimore: John Hopkins Press.

Strom, R. (1989). Rural families of gifted preschool and primary grade children. Journal of Instructional Psychology. 16 (1) 32-38.

Tegano, Deborah W. and Moran, James D. (1986). Cross-validation of two creativity tests designed for preschool children. Early Childhood Research Quarterly. 1. 387-396.

Torrance, E.P. and Safter, H.T. (1990). The Incubation Model of Teaching: Getting Beyond the AHA! Buffalo, NY: Bearly Limited.

von Oech, R. (1983). A Whack on the Side of the Head. New York: Warner Books.

Woodman, Richard W. and Schoenfeldt, Lyle F. (1990). An interactionist model of creative behavior. The Journal of Creative Behavior. 24 (1) 10-20.

Wortham, S.C. and Wortham, M.R. (1989). Designing creative play environments: Infant/toddler development and play. Childhood Education. No volume, no number 295-299.

Figure Captions

Figure 1. Model of the components impacting the creative process by Drs. Alexander and Nash.

Figure 2. Racial makeup of preschool students in the first year of the Kaleidoscope summer program.

Figure 3. Opportunities which are important to creatively gifted students.

Figure 4. Affirmation examples for use in classrooms of creatively gifted students.

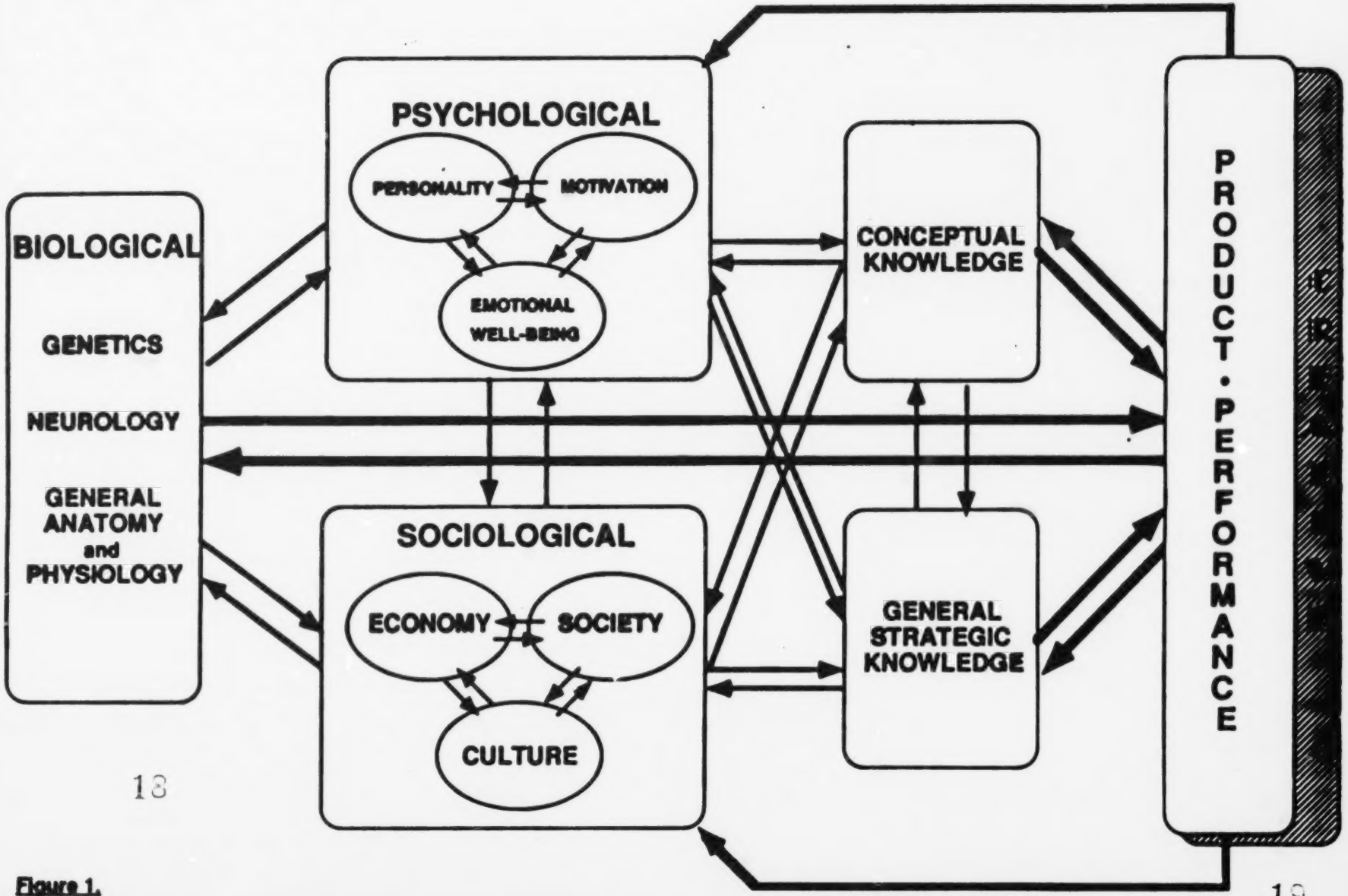

Figure 1.

Multi-dimensional, Interactive Process Model of Human Creativity

BEST COPY AVAILABLE

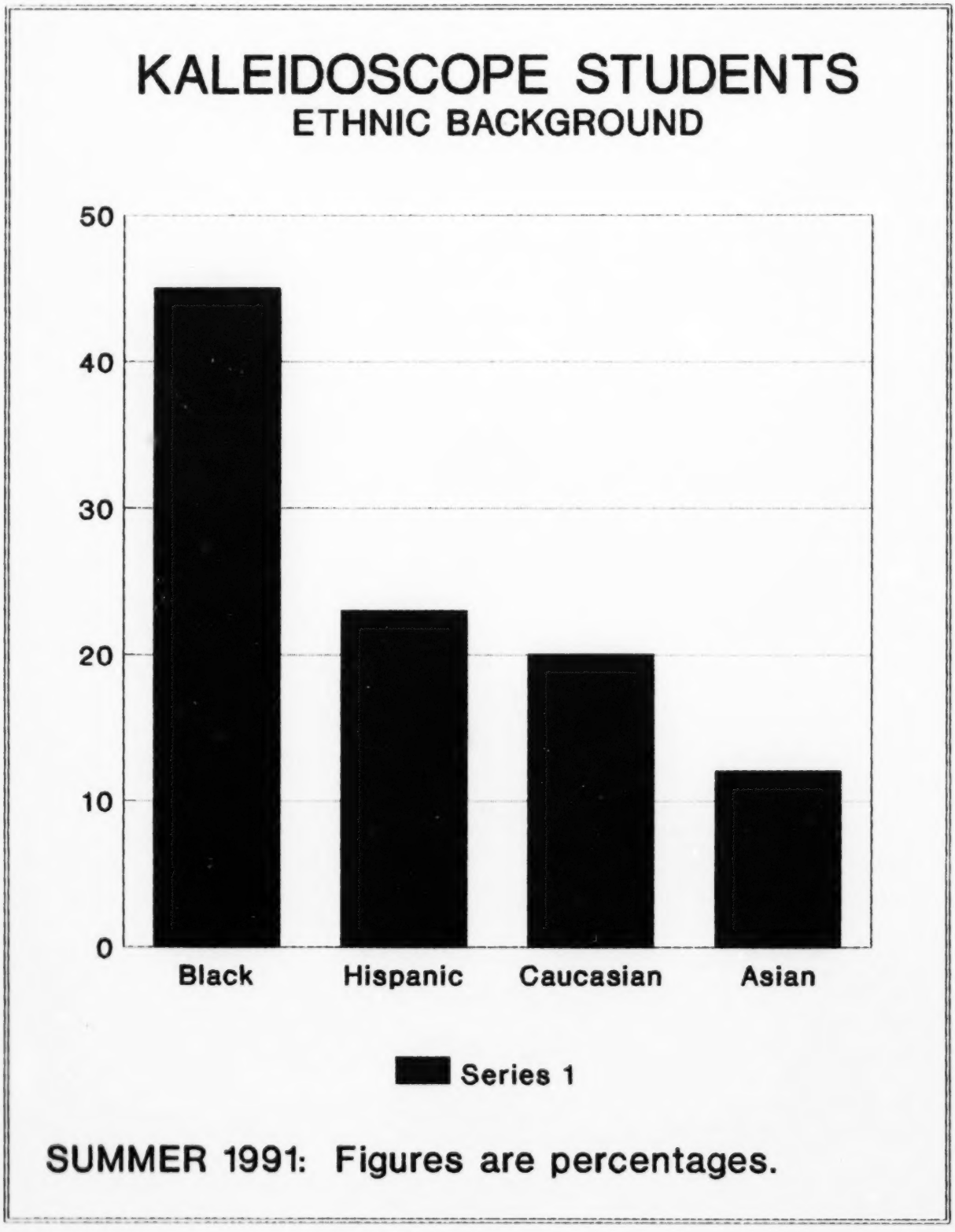
KALEIDOSCOPE STUDENTS
ETHNIC BACKGROUND
50
40
30
20
10
0
Black
Hispanic
Caucasian
Asian
Series 1
SUMMER 1991: Figures are percentages.

FIGURE 2

OPPORTUNITY

TO BE
TO TRY
TO FAIL
TO CHOOSE
TO TEACH OTHERS
TO SET PRIORITIES
TO MAKE DECISIONS
TO BE AN INDIVIDUAL
TO CONTROL THEIR TIME
TO ASK FOR ASSISTANCE
TO REQUEST MATERIALS
TO CONSULT WITH OTHERS
TO COMMUNICATE OPENLY
TO EXPRESS THEIR FEELINGS
TO ENJOY THEIR OWN SUCCESS
TO PLAN THEIR OWN PROJECT
TO SOLVE THEIR OWN PROBLEMS

FIGURE 3

AFFIRMATION

BEING TRUSTED

DISCUSSING CREATIVE WORK SERIOUSLY

COLLABORATING ON JOINT PROJECTS

BEING VALUED FOR CREATIVE INPUT

BEING GIVEN RESOURCES FOR YOUR CREATIVE WORK

EXPLORING AND DISCOVERING

IMPROVISING SUCCESSFULLY

RISKING AND LEARNING

FIGURE 4